

**IN THE SEQUENCE LISTING:**

Please insert new page 1 of the Sequence Listing after page 25 of the specification and before the claims.

## REMARKS

Claims 36-41, 68-73, and 76-79 are pending in the application. Claims 1-35 and 42-67 have been cancelled by previous amendments.

The specification has been amended to include sequence identifiers for the disclosed sequences. Specifically, the sequences on page 24, lines 6 and 8 have been labeled as SEQ ID NO:1 and SEQ ID NO:2, respectively. Also, the sequence on page 24, line 35 has been labeled as SEQ ID NO:3.

In addition, the specification has been amended to include a Sequence Listing. The Sequence Listing is submitted as a paper copy and computer readable form in accordance with 37 CFR §§ 1.821-1.825. The sequences in the Sequence Listing are described in the specification, specifically on page 24, lines 6-8, and one page 24, lines 34-35. Accordingly, no new matter has been added.

In compliance with 37 C.F.R. § 1.821(f), Applicants submit that the information recorded in the computer readable copy (CRF under 37 CFR § 1.821(e)) of the SEQUENCE LISTING submitted herewith is identical to the information in the paper copy of the SEQUENCE LISTING. The copies are submitted in accordance with 37 CFR §§ 1.821-1.825. The compact disk contains an IBM compatible dos-text file of the sequence listing named “011096SeqListing.ST25.txt”.

The Sequence Listing was created using PatentIn 3.3 and checked with Checker 4.3.1. No errors were found.

## Rejections Pursuant to 35 U.S.C. § 102

### A. *Zanzucchi, et al.*

Applicants appreciate the Examiner’s comments regarding the Applicants’ most recent arguments regarding Zanzucchi, *et al.* (Office Action , pp. 8-10), but the Applicants continue to disagree with the Examiner’s position based upon this reference. Therefore, the Applicants again ask the Examiner to reconsider it.

For example, contrary to the Examiner's interpretation of Zanzucchi, *et al.*, this reference does not teach a binding space that includes at least a part of an amplification space. The Examiner's comments suggest that she understands that that the binding space and the amplification space are connected by a channel that does not participate in either nucleic acid binding or amplification. Yet the Examiner maintains the position that both of the spaces are at least partly the same. Applicants, however, disagree that the two spaces can be different and yet the same. Accordingly, Applicants request that the Examiner reconsider this situation.

With regard to claims 39, 40 and 72, Applicants respectfully disagree that there are any limitations in Zanzucchi, *et al.* that teach a capillary reaction vessel surrounded by a heatable metal layer. The metal described here is part of an etching process and is not associated with heating the vessel. Applicants understand that the use of the metal is of no consequence if, in fact, the metal is heatable and does actually surrounds the vessel as the Examiner suggests. But Zanzucchi, *et al.* does not teach such an embodiment. The Examiner contends that the claims are open and do not exclude the limitations described in Zanzucchi, *et al.* The proper analysis, however, is whether Zanzucchi, *et al.* teaches each and every element of the claims. Because Zanzucchi, *et al.*, does not teach each and every element, Zanzucchi, *et al.* can not anticipate any of the presently pending claims.

#### **B. Yasuda, *et al.***

Applicants thank the Examiner for her comments regarding Yasuda, *et al.* (Office Action, pp. 10-11). The Examiner contends that the Applicants have ignored col. 9, lines 5-36 of Yasuda, *et al.*, which clearly indicates a PCR amplification space. Applicants, however, disagree that they have ignored this disclosure. Applicants respectfully point out to the Examiner that the disclosure following col. 9, line 36 expressly teaches that PCR happens in chambers 731 and 733, but not in chamber 732 where the nucleic acids are bound. (*See*, col. 9, line 40 through col. 10, line 54.) As discussed above, the Applicants disagree with the Examiner that distinct spaces are partially the same because the spaces are connected by a channel as described in Yasuda, *et al.*.

With regard to claims 38, 40, 68 and 72, Applicants respectfully disagree with the Examiner that the oxide layer of Yasuda, *et al.* surrounds the reaction vessel as presently claimed. The oxide of Yasuda, *et al.* may surround the reaction space, but not the vessel.

**C. Andresen *et al.***

Applicants appreciate, but respectfully disagree with, the Examiner's comments regarding Andresen *et al.* (Office Action, p. 11). Andresen does not teach a heatable metal layer that surrounds the exterior of the reaction vessel as presently claimed. Therefore, Applicants request that the Examiner reconsider her position regarding Andresen.

**D. Fields**

Applicants appreciate, but respectfully disagree with, the Examiner's new comments regarding Fields, *et al.* (Office Action, pp. 11-12). Applicants, however, continue to disagree with the Examiner regarding the interpretation that spaces that are connected by valves and tubing can be part of the same space. Applicants request that the Examiner reconsider her position on this issue and withdraw the rejection over Fields.

**CONCLUSION**

With the above amendments and remarks, Applicants respectfully submit that the application is in condition for allowance. If Examiner is of the opinion that a telephone conference would expedite prosecution of the application, Examiner is encouraged to contact Applicants' undersigned representative.

Respectfully submitted,

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